

Pendills Creek/Sullivan Creek NFH's
Annual Fish Waste Recycling Program

During each year under normal operating procedures fish rearing units (raceways) are systematically cleaned several times on a weekly schedule. This cleaning refers to the water level being drawn down and hatchery workers physically sweeping fish waste down the raceways thru perforated screens (designed to keep the fish in the raceways) and down drain systems that flow to an individual fish waste holding tank located at each facility. (See attached drawing of Circular sludge collector) Each year hatchery operating permits require this fish waste to be pumped out of each tank. This fish waste slurry can be processed meeting Michigan Department of Environmental Quality requirements in a number of ways. We opted for an environmentally friendly way of recycling this material by having it land applied to farmland as useful organic fertilizer. Once land applied the material is tilled into the ground to eliminate foul odors and foster biological activity. The fish waste material has high levels of ammonia and phosphorus and a variety of trace metals and elements.

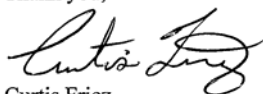
The hatchery complex has a contract in place to have a total of one hundred twenty thousand gallons of this fish waste slurry pumped out, hauled and land applied each year. Essentially, we are recycling over one million one thousand four hundred pounds (120,000 gallons X 8.345 pounds per gallon = 1,001,400 pounds) of fish waste slurry each year.

Videans Creek Hatchery Water Supply
Filtration Project

Simply put this project entails removal of silt and debris from the hatchery water supply at Pendills Creek NFH. The original concept of the project was to remove this material from the water supply filtered down to forty micron particle size for the betterment of the fish produced here. The system does provide this benefit but the additional benefit from the system is removal of silt and debris that would have eventually ended up into Lake Superior. So not only has this new system helping benefit hatchery fish but the total suspended load of silt and debris has been greatly reduced that would have entered into Lake Superior as sediment. This system is new (FY06) and the total amount of silt and debris removed annually is estimated to be several tons of material.

Please refer to the attached photos/drawings for reference.

Thank you,



Curtis Friez
Complex Manager, Pendills Creek/Sullivan Creek NFH's